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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,963	02/07/2002	Yoshio Saito	02072/LH	1518

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EXAMINER

DICUS, TAMRA

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/071,963	<b>Applicant(s)</b> SAITO ET AL. <span style="float: right;">FA</span>	
	<b>Examiner</b> Tamra L. Dicus	<b>Art Unit</b> 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 11-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

All prior rejections are withdrawn due to Applicants arguments.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claims 1-16, the phrase "polyethylene terephthalate type resin" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "type"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

3. Claims 14-16 are rejected further because it is not clear as to the structure. The hard coating film and the hard coat resin layer is not in any order in relation to each layer or the rest of the structure in instant claim 14. The transfer foil, releasing layer, transfer protective layer, and adhesive layer is not in any order in relation to each layer or in relation to the transparent, print pattern, or base layers in instant claim 15. The hard coating film and hard coating layer is not ordered in relation to each layer or in relation to the rest of the structure, similarly the order of the transfer foil, releasing layer, transfer protective, and adhesive layers is not ordered in relation to each other or the rest of the structure. Thus, the overall structure is unclear.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 875 374 A2 to Shimizu in view of USPN 5,656,359 to Hirota et al.

6. Shimizu teaches a decorative laminated sheet comprising a layer of completely amorphous polyester type resin (includes 100% amorphous polyester, meeting instant claim 6) and a substrate layer of amorphous polyethylene terephthalate (APET) see Example 1, page 3, lines 35-55, page 4, lines 1-20 and Abstract. Shimizu teaches an APET can be partially crystalline at page 2, lines 15-25. The thermoplastic may be colored or surface-printed at page 2, lines 22-23. This teaching is equivalent to a base material of colored APET as a main component. Shimizu teaches a transfer foil may be applied over the APET, and that the foil may also be comprised of APET (see page 2, lines 45-55). Transparent layer is provided as a protecting print layer at page 4, lines 10-15. A print layer for a design may be applied to the transfer foil, which Shimizu states can be made of the APET, thereby functioning as a suitable layer adjacent to a base material of APET, although Shimizu does not state the layering in the same manner. Further at page 4, lines 10-15, Shimizu teaches a transparent protective film for protecting the print layer and a top coat layer are known in the art and teaches applying adhesive to APET. Shimizu teaches corona treatment can be applied to APET at page 4, lines 1-5, and further laminated via adhesive and explains corona discharging APET and/or transfer foil (which inherently provides the "hard" property) laminated with adhesive (equivalent to "surface protective layer) in Example 2, hence meeting instant claims 2-5.

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While Shimizu teaches polyvinyl chloride resins may be blended with APET at page 3, line 11, Shimizu does not teach the ink composition of the pattern layer. However, Hirota teaches a decorative sheet of a print layer (2) with an ink composition overlying a polyester base (1) (col. 4, line 55-54). The print layer (2) has an ink layer comprised of a binder of vinyl chloride/acetate copolymer. See col. 5, lines 1-42. The binder is used to impart heat resistance and solubility. It would have been obvious to one of ordinary skill in the art to modify the sheet of Shimizu to include the ink composition including vinyl chloride/acetate copolymers for the purpose of imparting heat resistance and solubility as taught by Hirota at col. 5, lines 35-42.

Regarding instant claims 11-12 and 13, the ratio weight percentages of amorphous to crystalline PE resin are not taught by Shimizu. However, such percentages are merely optimizable. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. The weight percentage effects the crystallinity- the polymeric structure.

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection. Shimizu remains in the rejection because Shimizu teaches the components of the structure. Hirota is now used to teach the ink composition in the print layer.

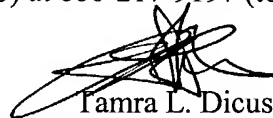
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tamra L. Dicus  
Examiner  
Art Unit 1774

10/26/04



RENA DYE  
SUPERVISORY PATENT EXAMINER 10/26/04  
A.U. 1774